



Protecting America's Future

Y-12 National Security Complex

TECHNOLOGY TRANSFER

**East Tennessee Veteran's Business Conference
August 5, 2008**

B&W Y-12, LLC
technical services

Y12
National Security Complex

NNSA
National Nuclear Security Administration

Y-12 Technologies Available

<http://www.y12.doe.gov/business/techtransfer/>

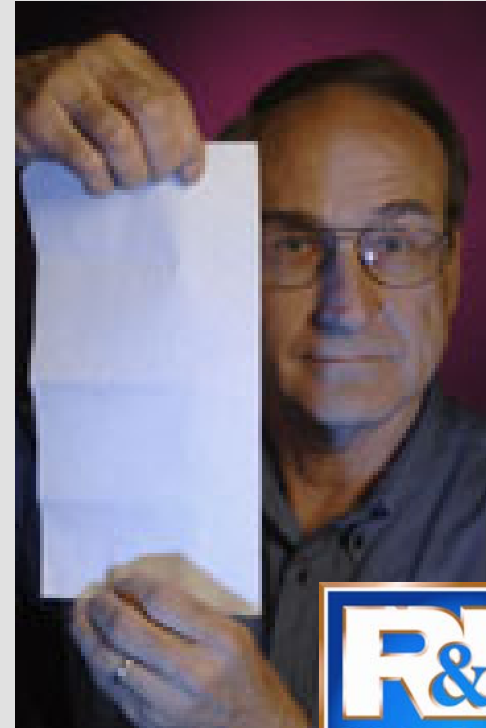


Access Rate Control System (ARCS)



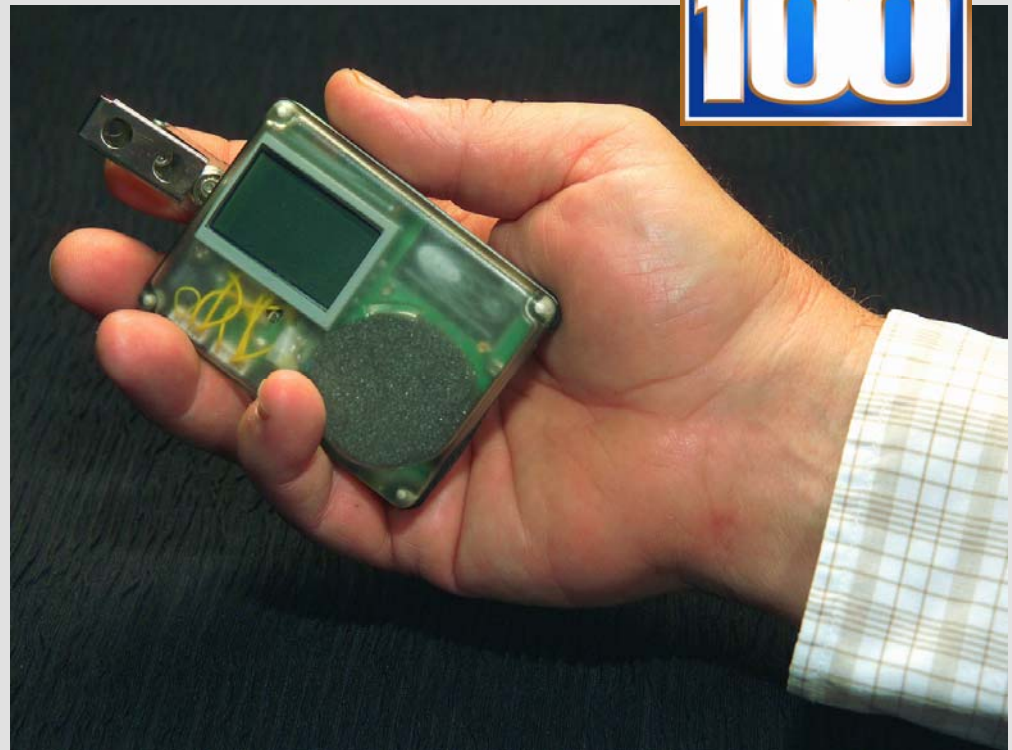
The Negligible Residue Tack Cloth

- Developed for cleaning Beryllium contamination
- Cleans to non-detect level (0.01 microns)
- Leaves no residue
- Doesn't feel sticky
- Environmentally friendly “green” solvent and tackifier
- SIMW_YPES™
- 2008 R&D 100 Winner



Personal Annunciation Device (PAD)

- Event notification via radio frequency identification technology (RFID)
 - Nuclear
 - Biological
 - Chemical
 - Radiation
 - Other dangers
- Secure and reliable and requires little human interface
- Does not require audibility
- 2007 R&D 100 Winner



Heating Technologies



- Microwave Processing of Materials
 - Heating
 - Sintering
 - Melting/Casting
 - Curing

- Infrared heating of metal alloys



What is Technology Transfer?

- Intellectual property can be created while performing work under the M&O contract with DOE
- DOE allows the contractor, B&W Y-12, to retain title to certain inventions
- Through review and certain considerations, Y-12 may decide to file patent applications on certain technologies
- Technology Transfer occurs when a company licenses a technology from Y-12 and commercializes it

Why Do Technology Transfer?

- National Policy – Stevenson-Wydler Act, 37 USC 3710
- Required by Y-12's Prime Contract with DOE - (DE-AC05-00OR22800 I.153(a)(1) defines TT as a Y-12 mission
- Raise our Prestige and Stature – Recognition
- Recruit and Retain the Best and the Brightest
- Royalties allow Technology Maturation Projects
- Win-Win
 - We earn royalties through licensing
 - Promote Economic Development
 - Licensee with end product can be a source for Y-12 procurement



Rapid Deployment Shelter System

Shelter In a Box



- Deploys in minutes
- Fully equipable 400 ft² facility
- Medical or base-of-operations applications
- 2007 R&D 100 Winner

Ways to work with Y-12

- Licensing – transfer of commercial rights to the private sector
- Cooperative Research & Development (CRADA) – R&D projects of mutual interest
- Work for Others – we do problem solving, make prototypes using our unique resources
- Mentor-Protégé agreements – assistance to small disadvantaged firms

<http://www.y12.doe.gov/business/socioeconomic/mentor.php>

- Available technologies

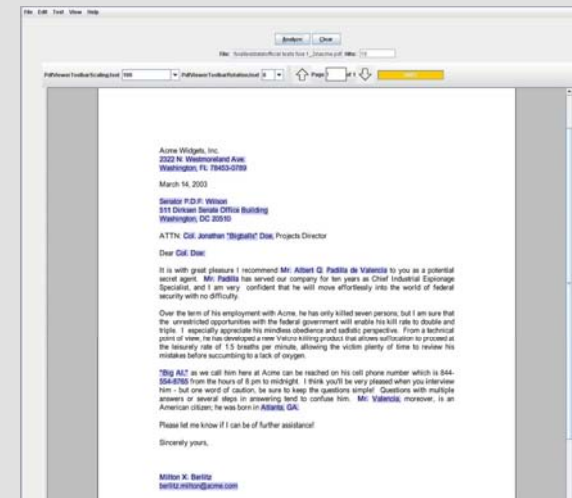
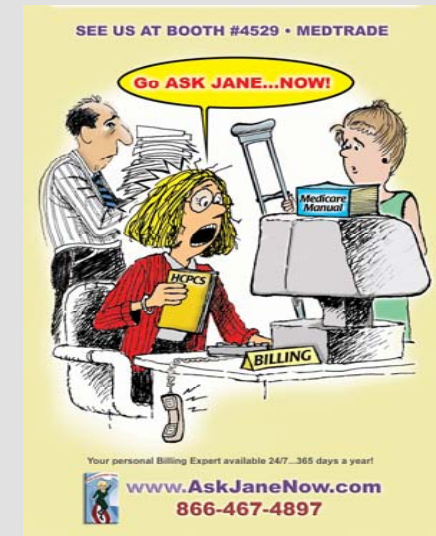
<http://www.y12.doe.gov/business/techtransfer/>

Partnerships

- Other Nuclear Weapons Complex sites to improve the Stockpile Stewardship Program
- Federal agencies to provide technological assistance and products
- Industry, universities and laboratories to develop the solutions necessary to keep the United States competitive in the world marketplace
- Oak Ridge Associated Universities
- Federal Laboratory Consortium
- Association of University Technology Managers

Success Stories with TN Business

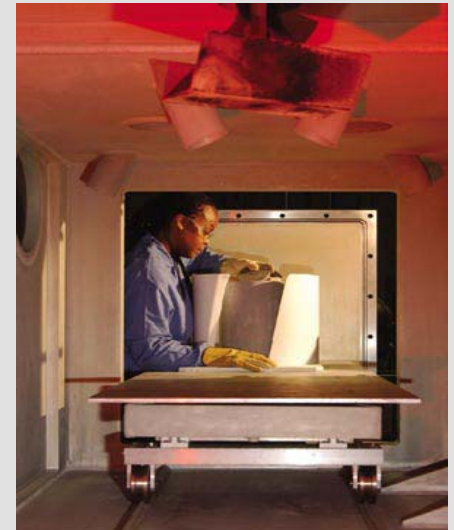
- AreteQ, Inc.
 - Developed under a CRADA
 - AreteQ continued development through a Work For Others agreement
 - Ask Jane Now
 - World's Best Technology
 - Newly Launched “Deep Six” PDF Redaction Tool



Highlighted words were identified as suspect by AreteQ's new Q-based redaction tool.

Success Stories with TN Business

- **MS Technologies, Inc.**
 - Licensed microwave metal melting technology
 - Assisting in Y-12's R&D efforts for use in Y-12
 - Plans for international development
 - Canada, Japan, Europe and Mexico





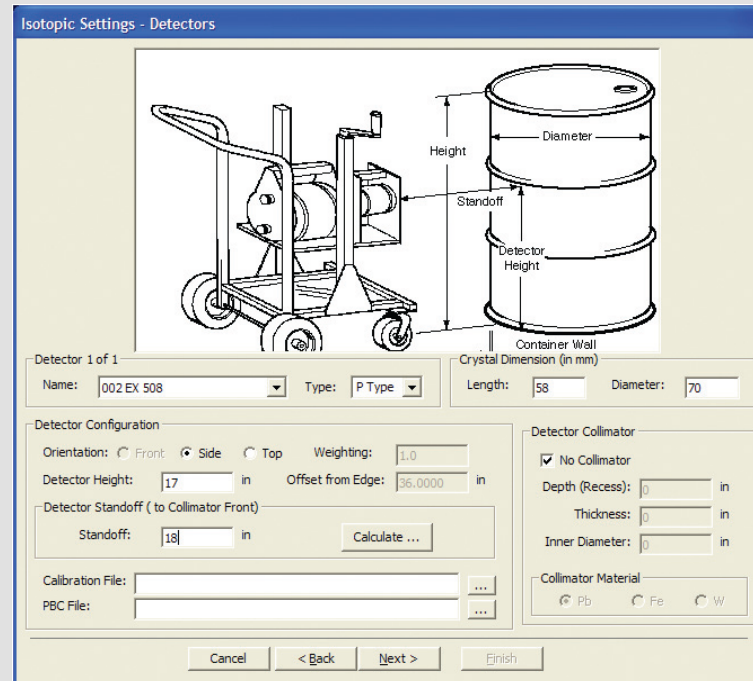
Success Stories with TN Business

- **Microwave Synergy, Inc.**
 - Licensed microwave metal melting technology
 - Owner is co-inventor of technology
 - Assisting in Y-12's R&D efforts for use in Y-12
 - Plans for international development
 - Australia



AMETEK

- Two licensing agreements for copyrighted software
 - ISOTOPIC
 - A Gamma Ray Measurement System used primarily for waste systems
 - HMS 4
 - Material Holdup Measurement System
- Agreements in place for ten years and just extended another ten years





Other TN Companies

- NucSafe - Oak Ridge
- SAIC - Oak Ridge
- Canberra - Oak Ridge
- VuBonics - Knoxville
- Neutron Sciences - Knoxville
- MicroFuze - Chattanooga
- Open Range – Crossville
- Adaptive Methods - Chattanooga

Questions?

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